

AperTO - Archivio Istituzionale Open Access dell'Università di Torino

Development of guidelines for health impact assessment in Southern Italy

This is a pre print version of the following article:

Original Citation:

Availability:

This version is available <http://hdl.handle.net/2318/1570969> since 2016-06-23T10:17:40Z

Published version:

DOI:10.1097/PHH.0000000000000300

Terms of use:

Open Access

Anyone can freely access the full text of works made available as "Open Access". Works made available under a Creative Commons license can be used according to the terms and conditions of said license. Use of all other works requires consent of the right holder (author or publisher) if not exempted from copyright protection by the applicable law.

(Article begins on next page)

Journal of Public Health Management & Practice

Development of guidelines for Health Impact Assessment in Southern Italy.

--Manuscript Draft--

Manuscript Number:	
Full Title:	Development of guidelines for Health Impact Assessment in Southern Italy.
Short Title:	Development of HIA guidelines in Italy.
Article Type:	Research Article
Keywords:	Health Impact Assessment; Guidelines; Methodology; Policies
Corresponding Author:	Fabrizio Bert, M.D. Universita degli Studi di Torino Torino, Torino ITALY
Corresponding Author Secondary Information:	
Corresponding Author's Institution:	Universita degli Studi di Torino
Corresponding Author's Secondary Institution:	
First Author:	Fabrizio Bert, M.D.
First Author Secondary Information:	
Order of Authors:	Fabrizio Bert, M.D.
	Maria Rosaria Gualano
	Francesco Di Stanislao
	Roberta Siliquini
Order of Authors Secondary Information:	
Manuscript Region of Origin:	ITALY
Abstract:	<p>Health impact assessment (HIA) is a multidisciplinary method aimed at assessing the health effects of policies, plans and projects using quantitative, qualitative and participatory techniques. In many European Countries, like in Italy, there is a lack of implementation of HIA evaluation procedures and it would be necessary to develop instruments and protocols in order to improve the specific skills of professional involved in the evaluation process. The Italian National Agency for Regional Health Services (AGENAS) is carrying out a project of implementation of HIA methods, through the development of guidelines in four Southern Italian regions. Public health search engine and institutional websites were consulted to recollect international data existing in this field. Periodically focus groups were then organized with regional representatives in order to discuss the scientific literature and to identify the guidelines' contents: source of data, stakeholders, screening and scoping phase checklist tools, priority areas, monitoring and reporting plans. Four regions (Calabria, Campania, Puglia, Sicilia) took part to the project. The present paper describes the methodology of the development and implementation of HIA Italian Guidelines. The tools created to collect data and assess health consequences (data sources and stakeholders to be involved lists, screening and scoping grids) are reported. This project represents the first structured initiative proposed and supported by the Ministry of Health aiming to introduce HIA in Italy. It would be recommended that HIA will be considered a priority in the public health agenda, as a fundamental instrument in helping decision-makers to make choices about alternatives to prevent disease/injury and to actively promote health.</p>



UNIVERSITY OF TURIN

DEPARTMENT OF PUBLIC HEALTH SCIENCES

Turin, 2015 January 13th

Dear Editor,

I'm pleased to submit our manuscript " **Development of guidelines for Health Impact Assessment in Southern Italy.**" for publication on *Journal of Public Health Management and Practice*.

We think that the manuscript fulfill the mission of the issue and of the Journal. The work is original and has not already been published and or simultaneously submitted to any other journal. All Authors have seen and approved the submitted manuscript and no conflicts of interest is declared.

Sincerely yours

Dr. Fabrizio Bert
Department of Public Health
University of Turin, Italy
via Santena 5 bis, 10126 Torino Italy
tel. 0039-0116705875
fax 0039-0116705889
e-mail: fabrizio.bert@unito.it

Title: Development of guidelines for Health Impact Assessment in Southern Italy.

Authors:

Fabrizio Bert^{1§}, MD; Maria Rosaria Gualano¹, MD; Prof. Francesco Di Stanislao², MD; Prof Roberta Siliquini¹, MD; HIA Collaborating Group*

HIA Collaborating Group: Quinto Tozzi³, MD; Renato Pizzuti⁴, MD; Liliana Rizzo⁵, MD; Salvatore Scondotto⁶, MD; Francesco Bux⁷, MD.

Affiliations:

¹Department of Public Health, University of Torino, via Santena 5 bis, 10126 Turin, Italy

²Department of Biomedical Sciences, Section of Hygiene and Public Health, Polytechnic University of the Marche Region, via Tronto, 10/a, Torrette di Ancona, 60020, Italy

³National Agency for Regional Health Services (AGENAS), via Puglie 23, 00187 Roma.

⁴Regional Health Authority of Campania - Centro Direzionale Isola C3 - 80143 Naples, Italy.

⁵Regional Health Authority of Calabria, Via Edmondo Bucciarelli, 30 - 88100 Catanzaro, Italy.

⁶Regional Health Authority of Sicily, via Vaccaro, 5 - 90145 Palermo, Italy.

⁷Regional Health Authority of Puglia, Via Gentile, 52 - 70126 Bari, Italy.

§Corresponding author:

Dr. Fabrizio Bert

Department of Public Health, University of Turin, Via Santena 5 bis, Turin (Italy)

Tel. +39-0116705875 Fax.+39-0116705889

Email: fabrizio.bert@unito.it

Keywords:

Health Impact Assessment; Guidelines; Methodology; Policies

Short Title:

Development of HIA guidelines in Italy.

Conflict of Interest

The Authors declare they have no conflict of interests.

Acknowledgments

The Authors would like to thank Dr. Basilio Calcò (AGENAS), Dr. Elisa Draghi and Dr. Selene Fulvi (University of the Marche Region, Ancona), Dr. Vincenzo Restivo (University of Palermo) and all the components of the Regional working teams of Calabria, Campania, Puglia and Sicily. A special thanks is addressed to the School of Specialization in Hygiene and Preventive Medicine of Palermo and Catanzaro. Finally, authors would like to thank the National Agency for Regional Health Services (AGENAS), the Italian Ministry of Health and the European Regional Development Fund (ERDF) for the financial and administrative support.

Title: Development of guidelines for Health Impact Assessment in Southern Italy.

Abstract

Health impact assessment (HIA) is a multidisciplinary method aimed at assessing the health effects of policies, plans and projects using quantitative, qualitative and participatory techniques. In many European Countries, like in Italy, there is a lack of implementation of HIA evaluation procedures and it would be necessary to develop instruments and protocols in order to improve the specific skills of professional involved in the evaluation process. The Italian National Agency for Regional Health Services (AGENAS) is carrying out a project of implementation of HIA methods, through the development of guidelines in four Southern Italian regions. Public health search engine and institutional websites were consulted to recollect international data existing in this field. Periodically focus groups were then organized with regional representatives in order to discuss the scientific literature and to identify the guidelines' contents: source of data, stakeholders, screening and scoping phase checklist tools, priority areas, monitoring and reporting plans. Four regions (Calabria, Campania, Puglia, Sicilia) took part to the project. The present paper describes the methodology of the development and implementation of HIA Italian Guidelines. The tools created to collect data and assess health consequences (data sources and stakeholders to be involved lists, screening and scoping grids) are reported. This project represents the first structured initiative proposed and supported by the Ministry of Health aiming to introduce HIA in Italy. It would be recommended that HIA will be considered a priority in the public health agenda, as a fundamental instrument in helping decision-makers to make choices about alternatives to prevent disease/injury and to actively promote health.

Keywords:

Health Impact Assessment; Guidelines; Methodology; Policies

Introduction

The World Health Organization (WHO) defines the Health Impact Assessment (HIA) as “a combination of procedures, methods and tools by which a policy, programme or project may be judged as to its potential effects on the health of a population, and the distribution of those effects within the population”.¹ Given that the health determinants and the main chronic diseases are influenced by several risk-factors related to policies and programs apparently unrelated to health, the assessment of possible impacts on population health is strongly recommended.^{2,3} Consequently, in the last years, a need of promotion and strengthening of HIA practice, emerged through actions on different sides³⁻¹⁵:

1) Policy frameworks and procedures, including legislation and law. The need of a policy framework is relevant for the HIA implementation. In this regard, the European Union is a good example of the limited potential of HIA in influencing the decision-making process when this practice is not mandatory.^{6,7} On the other hand, the institutional supporting of HIA through a specific legislation, such as in United States or in Thailand, has demonstrated to be useful in the widespread diffusion of HIA practices.¹⁶

2) Capacity-building mechanisms for HIA. The theoretical assumptions on HIA methods are only the basis for the implementation of correct and rigorous evaluations. Methodological tools suitable to different proposal and ability skills in completing the tasks required by HIA process are fundamental.^{9,10} In some countries, such as Italy, a huge limitation for the HIA introduction in current practice is, indeed, represented by a lack of professionals trained in this field. The lack of skills and training is particularly prominent in the main tasks of the HIA process: literature searching, critical appraisals undertaking and findings synthesizing.

3) Intersectoral collaboration. Considering the complexity of health determinants, a multidisciplinary approach is imperative.^{17,18} Strategies for providing a motivation for intersectoral collaboration through HIA are needed. The motivation for a multidisciplinary and intersectoral

1 approach could be strengthened by a legal obligation of some kind. In Thailand, for example, HIA
2 is included in the Constitution.
3

4 4) Health equity and social justice. The HIA promotion must include a deep consideration of the
5 health consequences in the different groups composing our society.⁸ A particular branch of HIA
6 named Health Equity Impact Assessment is strictly focused on this issues with a strong involvement
7 on vulnerable subgroups and minorities.
8
9

10 5) Strengthening of HIA methodology. In the past, methods and tools available for HIA have been
11 demonstrated to be not completely suitable for a rigorous and standardized data collection and
12 analysis.^{13,19-21} The overcoming of this criticism is essential because without a clear methodology
13 the HIA could be considered not evidence-based and thus susceptible of discredit.¹⁴ To achieve this
14 purpose, it is important to develop evaluation frameworks for integrating different types of research
15 evidence (stakeholders' experiences, local data, past HIAs) so that they can be used in decision-
16 making process.¹⁵
17
18
19
20
21
22
23
24
25
26
27
28
29
30

31 Based on these five elements, several Countries have successfully promoted HIA practice over the
32 past few years, such as the Asian Region, Canada, Australia, United States and the United
33 Kingdom.^{3,4,6,17,22-25} In other Countries, such as Brasil, the HIA has been integrated into existing
34 environmental and social assessment plans.²⁶ In Italy, instead, no laws relating to HIA have been
35 enacted yet and all the laws enacted so far included only Environmental Impact Assessment
36 (EIA).²⁷ In Italy, indeed, the protection of health is promoted almost exclusively at a strictly
37 medical level; while decisions with strong social and environmental impact are not normally
38 designed with particular regard to health issues. HIA is seldom implemented and the professionals
39 working on this topic are very few.
40
41
42
43
44
45
46
47
48
49
50
51
52

53 This paper aims to describe a project financed by the European Regional Development Fund
54 (ERDF), focusing on the spreading of the HIA methodology through the development and
55 implementation of ad hoc HIA guidelines in four Southern Italian Regions.
56
57
58
59
60
61
62
63
64
65

Methods

The POAT Health 2007-2013 project

In the past years, the ERDF has allocated funding to help some European regions to overcome their socio-economic development gap with the most virtuous Countries. This invitation was welcomed by the National Agency for Regional Health Services (AGENAS), an institution that plays a role of connection between the Ministry of Health and the Regions and decision support on the development strategies of the National Health Service. A program named “POAT Health 2007-2013” (Operative Project of Technical Assistance) has been launched by the AGENAS in 2007 with the specific aim to develop important guidelines and to produce methodological documentation related to their implementation. In this framework, a specific intervention addressed to HIA implementation in the Italian context was commissioned. The geographical area interested by this program included four Regions of Southern Italy (Calabria, Campania, Puglia and Sicily) that are subjected to the “recovery from health deficit Plans” involving a reorganization of the regional health system. The HIA was seen as a priority tool to improve the health of these disadvantaged regions.

Establishment of working teams

In order to follow the project and support the local professionals of the four Regions, the AGENAS enrolled six experts consultants in Public Health and HIA from the Department of Public Health of Turin University and of Ancona University. The six experts supported the design of the project and the draft of the guidelines in each region through monthly meetings with regional working groups. In each Region was then created an intersectoral and multidisciplinary working team composed by 15-20 professionals with experience in health care services, health policy, economy, urban planning, social sciences, education, commerce, epidemiology and legislation.

Time schedule and Focus groups

1 The project started on January 2012 and will be completed at the end of 2013. Monthly meetings
2 with regional working groups were organized and several brainstormings were conducted to create
3 the working plan, the index of guidelines, the grid containing the sources of data, the table including
4 the stakeholders to involve, the screening phase checklist and the scoping grid with all the main
5 indicators and determinants of health. Two workshops were then organized in order to spread the
6 work among the different working groups and to involve the potential stakeholders. In the first
7 workshop (Palermo, December 2012) the draft of the guidelines were presented to potential
8 stakeholders and their suggestions about form and contents were collected. In the second one
9 (Naples, March 2013) the HIA guidelines were discussed in a inter-regional brainstorming with the
10 participation of the four working teams, of the AGENAS. experts and of two representatives of the
11 Ministry of Health.
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26

27 *HIA guidelines development*

28
29
30 During the several monthly focus groups, the professionals involved in the project identified the
31 index of the HIA guidelines. In the first section of the guidelines, the aim was to describe the
32 history and evolution of Health Impact Assessment at national and international level, the
33 application fields and the legislation supporting HIA. The second section outlined the relevance, the
34 aims and the areas of priority of HIA for the 4 Regions involved. The third section described the
35 methodology of HIA and provided the tools needed to collect the data sources, to involve the
36 stakeholders, to perform the screening, the scoping, the appraisal, the reporting and the monitoring.
37
38 Finally, the fourth and last section proposed some recommendations to improve the implementation
39 of HIA in the Regions involved.
40
41
42
43
44
45
46
47
48
49
50
51
52

53 *Tools for HIA*

54
55 We reviewed the scientific literature existing on HIA in order to identify some international
56 experiences and to select specific tools for screening and scoping phases. At this regard, several
57
58
59
60
61
62
63
64
65

1 grids were considered and reworked to be adapted to the Italian context.²⁸⁻³² Finally, we chose the
2 best elements of each experience to realize the four grids (stakeholders, data sources, screening and
3
4 scoping) suitable for our guidelines.
5

6
7 First of all, we identified a list of possible stakeholders to be involved in an evaluation process
8
9 (Table 1).
10

11 The list is not exhaustive but represents only an example of potential stakeholders to consider when
12
13 a health impact assessment starts. The stakeholders have been divided in 3 main groups:
14
15 institutional stakeholders, technical stakeholders and “population” stakeholders. For each
16
17 stakeholder, the grid requires to state the need and the ways of involvement. Institutional
18
19 stakeholders could be, for instance, Ministry, Regions and municipalities representatives. Technical
20
21 stakeholders could be, for instance, environmental agencies, hospitals, universities and police.
22
23

24
25 Population groups representatives and associations are examples of the last group of stakeholders.
26

27 Data sources to recollect data for the assessment were categorized in a specific table, according to
28
29 their health characterization (Table 2).
30
31

32
33 For each kind of data, the source declined as competent office and detail level have been indicated.
34

35 Also in this case, the list is not exhaustive but represents only an example of potential data sources
36
37 to consider when a health impact assessment starts.
38
39

40
41 A Screening grid was developed in order to select the proposal to be assessed according to context,
42
43 the resources available and the priority of the setting examined (Table 3).
44

45 This grid consider the main aspects of proposal focusing on the potential health impacts and on the
46
47 ability of HIA to influence the choices of decision-makers.
48
49

50 Finally, a Scoping grid was realized in order to plan and assess the potential health impacts of the
51
52 proposal, according to specific health determinants, divided by socio-economic, structural and
53
54 individual characteristics (Table 4).
55
56
57
58
59
60
61
62
63
64
65

For each item, the potential health impact was evaluated using a five-points scoring (from - 2= highly negative impact, to +2 = highly positive impact). Moreover, a list of groups at higher risk of health impact was elaborated and included in the grid.

HIA guidelines Validation and Implementation

Several simulations of impact assessment of hypothetical regional proposal will be conducted in order to validate the guidelines. As example, the working group of Sicily will examine the potential effects of a proposal aimed to reorganize the network of assistance and hospitality of irregular migrants and asylum-seekers, while the other Regions will collaborate in the assessment of the health consequences of the introduction of a new co-payment strategy for healthcare services. The result of these evaluations will be published when the complete reports will be available.

Finally, the validated HIA guidelines will be implemented in the regional legislation through specific legislative act of the councilor. This document will be used by the local and regional authorities in order to make the decision-making process aware of the possible health consequences of those policies unrelated to the healthcare field.

Discussion

The AGENAS with the “POAT Health 2007-2013” program, supported by ERDF, has implemented several initiatives aiming to reduce the gap of socio-economic development between the different Regions in the European Union. In particular, the four Regions of Southern Italy involved in the “recovery from health deficit Plans” were included in this project aimed to introduce the HIA in the decision-making process. This paper describes the process of HIA guidelines drafting and implementation, showing some examples of tools inserted in this document in order to spread knowledge in this field that is still lacking in capacity-building and practical experiences in many Countries, such as Italy.^{27,33}

1 This project represents the first structured initiative proposed and supported by the Ministry of
2 Health aiming to introduce HIA in Italy. In the past, very few experiences were conducted at local
3
4 level in Italy to assess the health consequences of programs and plans outside the health sector, for
5
6 instance in previous times only two Regions tried to introduce HIA guidelines.^{34,35} In this context,
7
8 an added value of this initiative included in the POAT Health 2007-2013, was the involvement of
9
10 the stakeholders and of the decision-makers of Calabria, Campania, Puglia and Sicily. The
11
12 participation of the Regions of Southern Italy seems, indeed, a good opportunity for those territories
13
14 who need to fill their gap respect to the more economically advantaged Regions of the North. This
15
16 is a big step forward in achieving the goal of making the South competitive and modern. Another
17
18 strength of this work was represented by the collaboration among several institutions and different
19
20 professionals that made this project intersectorial and multidisciplinary. Suggestions collected by
21
22 professionals working on healthcare services, health policy, economy, urban planning, social
23
24 sciences, education, commerce, epidemiology and legislation were useful to realize the impact
25
26 assessment through a comprehensive approach.
27
28
29
30
31
32

33
34 At the beginning of the project an important limitation was represented by the lacking of knowledge
35
36 and methodological skills on the topics of HIA. However, since the current literature reported this
37
38 criticism for HIA implementation, we were aware of the need to overcome this issue. This lacuna
39
40 was thus filled through a strong action of capacity-building supported by the six experts consultants
41
42 of Age.Na.S. in order to homogenize the level of knowledge of the working teams. Moreover,
43
44 another limitation is related to the difficulties in implementing and performing HIA in the current
45
46 politically troubled Italian context. Nevertheless, given the supporting and collaboration with the
47
48 Ministry of Health, a huge network of stakeholders and decision-makers were questioned in order to
49
50 make this document with its tools positively accepted.
51
52
53
54
55

56 The European Union and the World Health Organization (WHO) have appropriately encouraged the
57
58 HIA as an important method for maximizing health promotion at the local, national and
59
60 international levels.^{3,36,37} As discussed by Lee et al., the HIA indeed represents a bridge between
61
62
63
64
65

1 health and foreign policy with consequent awareness of decision-makers of health issues.^{17,38-42}

2 Health impact assessment (HIA) has in the last 15 years become an essential, global tool in the
3
4 development of healthier public policies.^{8,43,44}
5
6
7
8

9 *Conclusions*

10
11 In conclusion, despite of some difficulties in introducing this methodology of evaluation, it seems
12
13 important to include HIA in the Italian legislative framework in order to improve the decision-
14
15 making process, minimizing the negative health effects of policies not directly related to health.
16
17

18
19 Further research is necessary and several HIAs must be conducted to strengthen the knowledge and
20
21 the evidence available about the potential connections between health determinants and policies. A
22
23 cultural multidisciplinary approach is the basis for the development of a greater awareness of
24
25 policies' consequences on health among professional, stakeholders, decision-makers and citizens.
26
27

28
29 Given these assumptions, we strongly suggest that these themes should be addressed by the current
30
31 and future Public Health agenda.
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65

Conflicts of Interest

The authors declare no conflict of interest.

Acknowledgments

The implementation of HIA guidelines was supported by the Ministry of Health and the National Agency for Regional Health Services (AGENAS) and funded by the European Regional Development Fund (ERDF).

Author's Contributions

Fabrizio Bert and Maria Rosaria Gualano contributed the guidelines implementation and drafted the paper. Francesco Di Stanislao, Quinto Tozzi and Roberta Siliquini coordinated as HIA experts the guidelines implementation and revised and corrected the paper drafted. Renato Pizzuti, Liliana Rizzo, Francesco Bux and Salvatore Scondotto coordinated the regional working groups and revised the paper.

References

1. World Health Organization (WHO). Regional Office for Europe. Definition of Health Impact Assessment. <http://www.euro.who.int/en/what-we-do/health-topics/environment-and-health/health-impact-assessment/definition-of-health-impact-assessment-hia>, accessed 7 January 2015
2. Lhachimi SK, Nusselder WJ, Boshuizen HC, Mackenbach JP. Standard tool for quantification in health impact assessment a review. *Am J Prev Med*. 2010;38(1):78-84.
3. Winkler MS, Krieger GR, Divall MJ, et al. Untapped potential of health impact assessment. *Bull World Health Organ*. 2013;91(4):298-305.
4. National Academy of Sciences. Improving health in the United States: the role of health impact assessment. Committee on Health Impact Assessment, Board on Environmental Studies and Toxicology, Division on Earth and Life Studies, National Research Council, editors. Washington: The National Academies Press; 2011.
5. Caussy D, Kumar P, Sein UT. Health impact assessment needs in south-east Asian countries. *Bull World Health Organ*. 2003;81:439–43.
6. Salay R and Lincoln P. Health impact assessment in the European Union. *Lancet*. 2008;372:860–1.
7. Tarkowski S and Ricciardi W. Health impact assessment in Europe: current dilemmas and challenges. *Eur J Public Health*. 2012;22:612.
8. Povall SL, Haigh FA, Abrahams D, Scott-Samuel A. Health equity impact assessment. *Health Promot Int*. 2014;29(4):621-33.
9. Winkler MS, Krieger GR, Divall MJ, Singer BH, Utzinger J. Health impact assessment of industrial development projects: a spatio-temporal visualization. *Geospat Health*. 2012;6:299–301.

10. Krieger GR, Bouchard MA, Marques de Sa I, et al. Enhancing impact: visualization of an integrated impact assessment strategy. *Geospat Health*. 2012;6:303–6.
11. Murray CJL, Vos T, Lozano R, et al. Disability-adjusted life years (DALYs) for 291 diseases and injuries in 21 regions, 1990-2010: a systematic analysis for the Global Burden of Disease Study 2010. *Lancet*. 2013;380:2197–223.
12. World Health Organization (WHO). The global burden of disease: 2004 update. Geneva: World Health Organization; 2008.
13. Mindell J, Biddulph J, Taylor L, et al. Improving the use of evidence in health impact assessment. *Bull World Health Organ*. 2010a;88(7):543-50.
14. Joffe M and Mindell J. A framework for the evidence base to support health impact assessment. *J Epidemiology Community Health*. 2002;56:132–8.
15. Petticrew M. Systematic reviews in public health: old chestnuts and new challenges. *Bull World Health Organ*. 2009;87:163.
16. Harris-Roxas B, Viliani F, Cave B, et al. Health impact assessment: the state of the art. Impact Assessment and Project Appraisal. 2012;30:43–52.
17. Kang E, Park HJ, Kim JE. Health impact assessment as a strategy for intersectoral collaboration. *J Prev Med Public Health*. 2011;44(5):201-9.
18. Marmot MG and Wilkinson RG. Social determinants of health. Oxford: Oxford University Press; 1999.
19. Thomson H. HIA forecast: cloudy with sunny spells later? *Eur J Public Health*. 2008;18:436–38.

20. Petticrew M. Systematic reviews from astronomy to zoology: myths and misconceptions. *BMJ*. 2001;322:98–101.
21. Parry J and Stevens A. Prospective health impact assessment: pitfalls, problems, and possible ways forward. *BMJ* 2001;323:1177–82.
22. Harris-Roxas B. Health impact assessment in the Asia Pacific. *Environ Impact Assessment Rev*. 2011;31:393–5.
23. Wismar M, Blau J, Ernst K, Figueras J. The effectiveness of health impact assessment: scope and limitations of supporting decision-making in Europe. Brussels: European Observatory on Health Systems and Policies; 2007.
24. Harris P and Spickett J. Health impact assessment in Australia: a review and directions for progress. *Environ Impact Assessment Rev*. 2011;31:425–32.
25. Krieger GR, Utzinger J, Winkler MS, et al. Barbarians at the gate: storming the Gothenburg consensus. *Lancet*. 2010;375:2129–31.
26. Vohra S. International perspective on health impact assessment in urban settings. *N S W Public Health Bull*. 2007;18:152–4.
27. Bert F, Ceruti M, Colombo A, et al. The Italian legislation on Health Impact Assessment: the current national and regional regulatory framework. *Ann Ig*. 2010;22(2):147–55.
28. Australian Government. Department of Health and Ageing. Health Impact Assessment Guidelines; 2001.
29. Institute of Public Health in Ireland. Health Impact Assessment Guidance for Ireland; 2009.
30. World Health Organization (WHO). Health Impact Assessment Toolkit for Cities. Document 1 Vision to Action; 2005.

1 http://www.euro.who.int/__data/assets/pdf_file/0007/101500/HIA_Toolkit_1.pdf, accessed 7

2 January 2015.

3
4
5 31. Muna IAA. Health Impact Assessment: An overview and examples. *Sudanese J Public Health*.
6 2007;2(3):140-5.

7
8
9
10
11 32. NHS Health Development Agency. Deciding if a health impact assessment is required
12 (Screening for HIA); 2003. <http://www.humanimpact.org/doc-lib/finish/12/13>, accessed 7 January
13 2015

14
15
16
17
18
19 33. Bruno S, de Waure C, Specchia ML, et al. Health impact assessment methods and practice: state
20 of the art and necessary developments. *Ig Sanita Pubbl*. 2010;66(5):601-15.

21
22
23
24
25 34. Agenzia Regionale per la Protezione Ambientale (ARPA) Piemonte. Proposta di Linee Guida
26 per la Valutazione di Impatto Sanitario (VIS); 2012. [http://www.arpa.piemonte.it/arpa-](http://www.arpa.piemonte.it/arpa-comunica/events/eventi-2012/presentazioni-convegno-via-vas-vis/linee-guida)
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65

36 35. Agenzia Sanitaria Regionale (ASR) Abruzzo. Linee Guida per la Valutazione di Impatto
37 Sanitario (VIS); 2008. <http://www.negrisud.it/ambiente/lineeguidaVIS.pdf>, accessed 7 January 2015

41 36. Bos R. Health impact assessment and health promotion. *Bull World Health Organ*.
42 2006;84:914–5.

47 37. Mindell J, Bowen C, Herriot N, Findlay G, Atkinson S. Institutionalizing health impact
48 assessment in London as a public health tool for increasing synergy between policies in other areas.
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65

38. Lee K, Ingram A, Lock K, McInnes C. Bridging health and foreign policy: the role of health
impact assessments. *Bull World Health Organ*. 2007;85:207–11.

39. Kemm J, Parry J, Palmer S. Health impact assessment: concepts, theory, techniques, and applications. Oxford: Oxford University Press; 2004.
40. Pursell L and Kearns N. Impacts of an HIA on inter-agency and inter-sectoral partnerships and community participation: lessons from a local level HIA in the Republic of Ireland. *Health Promot International*. 2012;28(4):522-32.
41. Kemm J. Health impact assessment: an aid to political decision-making. *Scand J Public Health*. 2008;36(8):785-8.
42. Parry JM and Kemm JR. Criteria for use in the evaluation of health impact assessments. *Public Health*. 2005;119:1122.
43. Scott-Samuel A, Ardern K, Birley M. Assessing health impacts. In Guest, C., Ricciardi, W., Kawachi, I., Lang, I. (eds), Oxford Handbook of Public Health Practice. Oxford University Press, Oxford, UK; 2013.
44. Collins J and Koplan JP. Health impact assessment a step toward health in all policies. *JAMA*. 2009;302:315–7.

About the Authors

Fabrizio Bert, MD, is resident in Public Health at the Department of Public Health of University of Turin. He is the international coordinator of EUPHANxt, the young section of European Public Health Association. His research has focused on E-Health, Health Impact Assessment and Public Health (E-mail: fabrizio.bert@unito.it).

Maria Rosaria Gualano, MD, is Assistant Professor in Public Health at the Department of Public Health of University of Turin. She focused her research on Health Technology Assessment, E-Health and Epidemiology (E-mail: mariarosaria.gualano@unito.it).

Francesco Di Stanislao, MD, Prof, is Full Professor in Public Health at the Department of Biomedical Sciences, Section of Hygiene and Public Health, of Polytechnic University of the Marche Region. He held positions on several regional commissions in Italy and for the National Agency for Regional Health Services (E-mail: fdistani@mta01.univpm.it).

Roberta Siliquini, MD, Prof, is Full Professor in Public Health at the Department of Public Health of University of Turin. She heads the Post-Graduate School in Hygiene, Preventive Medicine and Public Health of University of Turin. She focused her research in several fields of Public Health, such as E-Health and Health Impact Assessment (E-mail: roberta.siliquini@unito.it)

Copyright Transfer Agreement Form

[Click here to download Copyright Transfer Agreement Form: copyrightTransfer_BERT.pdf](#)

Copyright Transfer Agreement Form

[Click here to download Copyright Transfer Agreement Form: copyrightTransfer_GUALANO.pdf](#)

Copyright Transfer Agreement Form

[Click here to download Copyright Transfer Agreement Form: copyrightTransfer_DISTANISLAO.pdf](#)

Copyright Transfer Agreement Form

[Click here to download Copyright Transfer Agreement Form: copyrightTransfer_SILQUINI.pdf](#)